# Appendix G Annotated Comments

#### FORT MCCLELLAN COMMENTS

ON

# DRAFT ENGINEERING ESTIMATE/COST ANALYSIS FOR THE M2 PARCEL

#### General Comment

1. Please put this document and all future documents in white 3 ring binders.

Response: Revised document is in 3 ring binders.

#### **Specific Comments**

1. Executive Summary, paragraph E.2.1, last sentence: Should EPA be included with the regulatory agencies?

Response: Text has been revised to include "Federal agency comments".

2. Executive Summary, paragraph E.4.1: In the second sentence, "the" should be inserted between "became" and "site". Shouldn't the fourth sentence say the USACMLS was moved to Edgewood Arsenal instead of closed?

Response: Text has been revised.

3. Executive Summary, paragraph E.5.1: Shouldn't "Cost" in the list of criteria be moved over to align with "Effectiveness" and "Implementability" as one of the three major categories of criteria?

Response: Alignment has been corrected.

- 4. Page i, Table of Contents: The page number for LIST OF FIGURES should be iii and the page number for ACRONYMS AND ABBREVIATIONS should be iv. Page numbers of many of the sections in the Table of Contents do not match the location in the sections. See following comment.
- 5. Section 1: Page numbers on Section 1 begin with 5 instead of 1.

**Response 4 & 5:** All page numbers and page number references have been corrected.

6. Section 1, paragraph 1.1.1, first sentence: The number of acres should be 18,929 instead of 18,946.

Response: Text has been revised.

7. Section 1, paragraph 1.2: Lines after the first line should be moved over to the left margin.

Response: Alignment has been corrected.

8. Section 1, paragraph 1.3.7: In the next to last line, shouldn't a comma be inserted after the first (M8) and the second (M8) be (M48)?

Response: Text has been corrected.

9. Section 1, paragraph 1.3.8: Lines after the first line should be moved over to the left margin.

Response: Alignment has been corrected.

10. Section 1, paragraph 1.4.1: Lines after the first line should be moved over to the left margin. A period should be placed after the last sentence.

Response: Alignment and punctuation has been corrected

11. Section 2: Should Section 2 be started on a new page?

Response: Section 2 has been formatted to start on a new page.

12. Section 3, paragraph 3.2.1: In the third line, "Alternatives 3" should be "Alternative 3".

Response: Text has been corrected

13. Section 3, paragraph 3.3.1: Shouldn't "Parcel" be inserted after M2 in the first line?

Response: Text has been corrected

14. Section 3, paragraph 3.3.3: Shouldn't "were" in the third line be "where"?

Response: Text has been corrected

15. Section 3, paragraph 3.3.5: A space should be inserted between "in" and "accordance" in the fifth line.

Response: Text has been corrected

16. Section 3; paragraphs 3.4.3, 3.4.4, 3.4.5 and 3.4.6: Shouldn't these be renumbered as subparagraphs under paragraph 3.4.2?

Response: Paragraph numbering has been corrected

17. Section 3; paragraphs 3.4.8, 3.4.9, 3.4.10, 3.4.11, 3.4.12 and 3.4.13: Shouldn't these be renumbered as subparagraphs under paragraph 3.4.7?

Response: Paragraph numbering has been corrected.

18. Table 3.1 (Continued): In Recommendations row, spacing of words should be corrected. Also, should insert "of" between "part" and "risk" in Alternative 2 column.

Response: Text has been corrected

19. Section 4, paragraph 4.2: There is not a Table 2.1 as indicated in the next to last line of this paragraph.

Response: Reference to Table 2.1 has been deleted

20. Appendix B, paragraph B2.5: Shouldn't "Table 1.1" in the second line be "Table 1.2"?

Response: Text has been corrected

21. Appendix B, paragraph B2.8: Shouldn't "25,000" in the sixth line be "19,000"?

Response: Text has been corrected

22. Appendix B, paragraph B3.2: Shouldn't the second "on" in the second line be "own"?

Response: Text has been corrected.

# Draft Engineering Evaluation/Cost Analysis for the M2 Parcel Fort McClellan, Anniston, Alabama

1. <u>Figure 2</u>. It would be helpful if the proposed Eastern Bypass alignment could be shown on the figure.

Response: An additional figure has been added to the document to show the proposed alignment of the Eastern Bypass in relation to the M2 Parcel.

2. <u>Page 13, Section 2.5.5</u>. The last sentence refers to Table 2.2, however Table 2.2 is missing from the document.

Response: Text referencing Table 2.2 has been deleted

3. Page 14, Section 2.6. Verify the correct name of the JPA. I believe it is Anniston-Calhoun County Fort McClellan Development Joint Powers Authority.

Response: Text has been corrected to reflect correct name of JPA.

4. Page 18, Section 3.3.3. Typo. Change "were" to "where" in the second sentence.

Response: Text has been corrected.

5. <u>Page 25, Section 4.2</u>. The second paragraph refers to Table 2.1, however Table 2.1 is missing from the document.

Response: The correct reference is Table 3.1. Text has been corrected.

6. <u>Page 25, Section 4.3</u>. The first sentence refers to "the ongoing RI/FS and Record of Decision". Which RI/FS is this referring to?

Response: This reference was a typographical error and has been deleted.

End of Comments

Ronald M. Levy BRAC Environmental Coordinator Environmental Office, Bldg 215, 15th Street US Army Garrison Fort McClellan, Alabama 36205-5000

RE: ADEM's Comments on the Draft EE/CA for the M2 Parcel at Fort McClellan, Alabama

Dear Mr. Levy:

The Alabama Department of Environmental Management has received and reviewed the *Draft EE/CA for the M2 Parcel*, Fort McClellan, AL. We have enclosed our comments for your review and written response. The Department expects a written response to all of the enclosed comments one week prior to the scheduled BCT Meeting on April 25-26, 2000.

For any questions or concerns please contact me at 334-271-7789 or <u>clj@adem.state.al.us</u>

Sincerely,

Christopher L. Johnson Governmental Facilities Section Hazardous Waste Branch Land Division

CLJ/

Enclosure

cc:Bart Reedy, EPA Region 4, w/ enclosure David Skridulis, USACE-HNT, w/ enclosure Ellis Pope, USACE-MOB, w/ enclosure

# ADEM'S COMMENTS ON THE DRAFT EE/CA FOR THE M2 PARCEL DATED MARCH 2000 FORT McCLELLAN, ALABAMA

#### **General Comments**

1. The title of this document should be revised to reflect the content of which it contains. Is this a report or a workplan? In addition, the submittal should clarify how an EE/CA is utilized in the overall removal process, assuming the Army is indeed following the Non-Time Critical Removal Action Process as defined by the NCP. See Exhibit 1 for details. Please clarify.

Response: Title of Document has been clarified

2. The term Institutional Controls is used extensively throughout the document. The BCT has agreed to use the term Land Use Controls as the overarching term used to describe both Engineering Controls and Institutional Controls. Please refer to the Draft-Final Land Use Control Assurance Plan Memorandum of Agreement (LUCAP MOA-March 2000) for specific details. Please revise all language throughout the EE/CA in a manner that is consistent with the LUCAP MOA.

Response: Reference to institutional controls has been deleted and replaced with language consistent with the proposed LUCAP MOA.

3. The Department has a hard time understanding how the Army continues to claim that OE removal actions are being conducted "consistent" with CERCLA and the NCP. If the Army wishes to continue to stand on their "consistency" claim, then the Army must be willing and ready to receive and respond to the numerous comments that are generated by the regulators due to such claim.

Response: Comment noted

4 The Army should provide the specific CERCLA statutes and NCP regulations that the EE/CA is being conducted consistent with or pursuant to. Simply stating that the EE/CA is being conducted consistent with CERCLA and the NCP is not

meaningful. For example, what statutory authority under CERCLA is the Army using to conduct this removal action? What NCP regulations guide the EE/CA process? What NCP regulations warrant/justify the recommended removal action be taken? Please revise the submittal in a manner that specifically cites CERCLA statutes and NCP regulations.

Response: Specific references have been added.

5. The Department questions how the Army can justify a removal action for a site without first determining the nature and extent of contamination and then based on such data, determine the risk posed by the site. In the Army's letter dated March 24, 2000 (2<sup>nd</sup> paragraph) you state the "primary purpose of the EE/CA is to characterize the nature and extent of ordnance. In addition, the EE/CA examines a variety of risk management alternatives," It appears we agree on this matter, therefore please explain how the Army justifies a removal action without first characterizing the site and determining the risk posed by the site.

Response: In accordance with "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA", para. 2.1, the EE/CA "should contain only those data necessary to support the selection of a response alternative, and rely upon existing documentation whenever possible." The M2 Parcel has been determined to be part of a larger training area, which used OE practice and training items. The draft EE/CA for the Proposed Eastern Bypass and the current removal action being conducted to support pre-construction activities for the Proposed Eastern Bypass have delineated through identification of OE practice and training items, that this training area extends along the northern and eastern boundaries of the M2 Parcel. information also has identified that this type of OE was encountered when property was developed south of the M2 Parcel boundary. This data and existing documentation provides sufficient information for determining the nature and extent of contamination for the M2 Parcel, evaluation of the associated risk, as well as for selection of a response alternative.

6. The Department does not agree that this EE/CA has been prepared consistent with the NCP and CERCLA. Major inconsistencies are as follows: 1) an EE/CA Approval Memorandum was not prepared prior to initiation of the EE/CA 2) the goals and scope of the EE/CA were not clearly identified, 4) nature and extent of contamination was not

defined, 5) the risk assessment/analysis process is 3) the methods used to conduct the initial and detailed screening evaluation are flawed. For example, is this the first and only action necessary to protect human health and the environment or is this one of several actions to be taken at the site? If no other actions are intended, then the role of the EE/CA is to provide definitive information on the source, nature and extent of contamination and risks presented by the site. The scope of the removal action plays a very important role in determining the content of the EE/CA. ADEM highly recommends revisiting the NCP and EPA's Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA (EPA/540-R-93-057, August 1993) for clarification on the role and purpose of conducting EE/CAs. Please revise all sections throughout the report accordingly.

Response: Funding approval for the EECA serves as the EE/CA Approval Memorandum for the Army. CEHNC was authorized to use funding for this effort prior to initiation of the EECA. The nature and extent of contamination has been defined. See response to comment 5. This EECA does provide definitive information on the source, nature and extent of contamination and risks posed by the site. "Consistent" does not mean we strictly follow each step. There are deviations we make to accommodate explosive hazards. We do believe that this document fulfills the requirements necessary to recommend a removal action for this 20-acre parcel. Also, see DA letter dated March 24, 2000.

7. Does the Army consider this to be an emergency, critical, or non-time critical removal action? It is important to clarify this throughout the report because the NCP has different requirements depending on the type of removal action being considered. Based on the timeframes and scope of the proposed removal action, the Department considers this to be a Non-Time Critical Removal Action. Please clarify.

Response: Text has been clarified to state that the removal action is a non-time critical removal action.

8. The Army's removal action goals are extremely vague. The EE/CA Report does not clearly provide the understanding of the level of protectiveness the action will provide. The following questions immediately surface: Will the removal action be protective of both the commercial and residential scenarios? Is this action considered to be the final remedy

for Parcel M2? Are land use controls being proposed for the recommended action? Does the Army intend to implement a Land Use Control Implementation Plan (LUCIP) for Parcel M2? According to the scope of the removal action all OE will be removed from the surface and subsurface of Parcel M2. However, the use of "Institutional Controls" is mentioned several times throughout the report. If "ICs" are intended then the Army must provide detailed reasons as to why ICs are necessary when "all OE will be removed". Please clarify these issues.

Response: Clarifying text has been added.

9. Figures should be included in the EE/CA Report to support and clarify the various sections of the submittal.

Response: Additional figures to support and clarify the report has been added.

10. The terms OE, UXO, and CWM should be defined within the EE/CA for clarification to the reader.

Response: Definitions have been added for clarification

#### Specific Comments

#### #/Page/Section Comment

1/ES/E.1.1

The first sentence states "the Army proposes a removal action to reduce the risk of exposure to ordnance and explosives at Parcel M2". The Department questions how and when a risk assessment was conducted for Parcel M2? In other words, what risk level triggered the decision for the removal and how was the risk level determined? What data was used to evaluate the risk?

Response: A risk assessment has been provided as part of this EECA documentation. In accordance with "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA", para. 2.1, the EE/CA "should contain only those data necessary to support the selection of a response alternative, and rely upon existing documentation whenever possible." There was a significant amount of data available from other investigations that identified a risk from the presence of OE on the M2 Parcel. This information clearly defined the nature and extent of OE, the associated risk, and associated costs for conducting a removal action. No additional data was necessary for selecting a preliminary response alternative. The additional information necessary to select the response alternative is feedback on regulatory and public acceptance of the recommended alternative.

2/ES/E.2.1 The title of this section is incorrect. Community Participation is required of the Army according to the NCP, not requested. ADEM recommends deleting the term "REQUESTED" from the heading. Secondly, the Department questions which version (draft or final) of the EE/CA the Army intends to offer the public a 30-day review? Secondly, how does the Army intend to advertise the EE/CA for public review?



**Response:** The Army is "required" to "request" community involvement. We cannot require their involvement. If the community chooses not to participate or respond to our request, we have no way of forcing their participation. Title of this section has been revised to "Community Involvement".

3/ES/E.3. A figure should be associated with this section for clarification to the reader.

Response: A figure has been added for clarification

4/ES/E.4 This section discusses general history of Fort McClellan, not Parcel M2. The history of Parcel M2 should be provided in detail. For example, what activities occurred at M2? What OE items were used at M2? What were the dates of training/operation?

Response: The available information on the history of the M2 Parcel has been added for clarification.

5/ES/E.5. 1<sup>st</sup> bullet: Please define the term "No DoD Action Indicated". ADEM is not familiar with this term. The appropriate term to be used is "No Action".

Response: A copy of the DA Memorandum has been included as an attachment to annotated comments. The rationale for this change is that the perception of the NOFA terminology represents a final determination when eligible property or an associated project is found to have no DoD action. This is not the case for OE projects. If new information is found, the status of the property will be reconsidered. The term "NDAI" is more indicative of a determination that is open to further review and is not a final decision.

2<sup>nd</sup> bullet: Delete "Institutional Controls" and replace with "Land-Use Controls".

**Response:** Reference to institutional controls has been deleted and replaced with language consistent with the proposed LUCAP MOA.

6/ES/E.5. 2<sup>nd</sup> paragraph: The manner and content in which the criteria are presented does not accurately represent the nine criteria as defined according to Section 300.430 of the NCP. As you should be aware, when removal actions are conducted to serve as the "final remedy" for sites, then the scope of the removal takes on a whole new meaning, not unlike that of a remedial action. Therefore, each alternative must be evaluated against the nine criteria, not just the general categories of effectiveness, implementability and cost. The nine criteria as defined by Section 300.430 of the NCP has been provided below for your use and incorporation into the Final EE/CA.

#### Threshold Criteria:

- 1. Overall Protection of Human Health and the Environment
- 2. Compliance with ARARs

#### Primary Balancing Criteria:

- 3. Long-Term Effectiveness and Permanence
- 4. Reduction in Toxicity, Mobility, and Volume through Treatment
- 5. Short-Term Effectiveness
- 6. Implementability
- 7. Cost

#### Modifying Criteria

- 8. Regulatory Acceptance
- 9. Community Acceptance

Response: Within the 3 criteria, we address 8 of the 9. We do not address MTV because the Army does not believe that it is applicable to OE. We do know that a removal action will reduce the volume of OE and we can document the amount of OE that we find and remove. At this time it is not known if the removal action will be a final remedy. Additional remedial actions could be required based on the SI currently being conducted by IT. In addition, if at any time in the future there is an indication that a residual OE hazard remains at the site, additional remedial alternatives may be required.

7/ES/E.5.1 Analysis and Recommendation Action Section: 1<sup>st</sup> paragraph mentions the removal action objectives. ADEM believes it would seem prudent to discuss the removal action objectives in the Executive Summary rather than referring the reader to Section 2.

Response: Additional text has been added to the Executive Summary.

Secondly, the 3<sup>rd</sup> sentence of the 1<sup>st</sup> paragraph states that "Alternative 2 (Institutional Controls) be evaluated as part of the overall risk management of Fort McClellan." The Department questions this statement in regards to its applicability to the recommended action, namely Alternative 4. If the recommended action is clearance of all potential or known OE, regardless of depth, then why would Institutional Controls or Land Use Controls (LUCs) be necessary for Parcel M2? On the other hand, if the Army is envisioning the use of LUCs with Alternative 4, then such LUCs must be defined and included as part of Alternative 4. When evaluating alternatives against the nine criteria one doesn't couple alternatives together (i.e. Alternative 2 and 4). Please clarify.

Response: Alternative 4 has been revised to discuss LUCs as part of the recommended alternative.

8/i/TOC The LIST OF FIGURES is on page iii not ii. Please revise.

Response: Revision has been made.

9/i/TOC The ACRONYMS AND ABBREVIATION is on page iv not iii. Please revise.

**Response:** Revision has been made.

10/i/TOC The page numbers provided in the Table of Contents is incorrect for all sections of the document. Please revise.

Response: Revision has been made.

Figure 2 Figure does not accurately depict the boundary of Parcel M2. According to FTMC staff and ADEM site visits, the eastern boundary of the site extends eastward and abuts against the unimproved road. Please revise Figure 2 to accurately reflect the size, topography, streams, roads, etc. of Parcel M2. The figure should also include a legend and be drawn to scale.

Response: The location of the M2 Parcel has been corrected. The purpose of figure 2 is not to show specific details for the M2 Parcel but to show its location in respect to Fort McClellan. Due to the scale of this drawing, it would not be practical to add more detail. A more detailed figure has been added to the Executive Summary to show more specific detail for the site.

12/7/1.3.2 Last sentence of paragraph. Delete "material" and replace with "materiel".

Response: Text has been correct.

13/7/1.3.3 The information provided in this section is dated. The Environmental Assessment was finalized and signed on August 29, 1998. A Finding of No Significant Impact was finalized and signed on December 2, 1999. Please revise.

Response: Revision has been made.

14/8, 3.6 According to Appendix C, the geophysical anomalies depicted in Area 6 are a result of a geophysical proveout. The anomalies depicted in the geophysical surveys are shown to be the result of seeded items. Please explain.

Response: The legends for some of the figures were reversed (i.e., proveout was labeled survey and survey was labeled proveout) in the original document, "Draft Eastern Bypass EE/CA at Fort McClellan," July 1999. These figures have been corrected in both documents.

2<sup>nd</sup> sentence states that "several OE items used for training were found in sampling grids near the M2 Parcel." The Department would like more specific information regarding the location, number and type of OE items found in relationship to Parcel M2. In addition, a figure and description of all the OE items found "in and around" Parcel M2 would be very informative. Please revise.

**Response:** More specific information has been added. Also, an appendix with figures of each type of item has been added.

16/9/1.4 The resources used to provide the data for Table .2 should be specifically cited in this section or in Table 1.2.

Response: The resources have been referenced in Table 2.

This section is absolutely uninformative. There is nothing in this section or Appendix B that either quantitatively or qualitatively describes the risks posed by Ordnance and Explosives (OE) at Parcel M2. At minimum, risk assessments should serve the following purposes: 1) Characterize the risk posed by OE. 2) Document the need for a removal/remedial action. 3) Serve as the primary tool for calculating cleanup levels. 4) Evaluate risk after a removal action has been completed (i.e. post-removal risk evaluation). 5) Guide the decision-maker as to the level of Land Use Controls necessary for a site, pre or post remedy. 6) Provide a basis for determining levels of OE that can remain on-site and still be protective of public health. The Department feels that if the Army's risk assessment process for OE cannot achieve the above, then no value is added to the process by conducting a risk assessment. If the Army claims that their risk assessment process is consistent with the NCP, then ADEM suggest the Army re-visit the NCP as well as the numerous EPA Guidance documents that specifically discuss the role of the Risk Assessment (RA) in the Superfund Process.

Response: The risk analysis for the M2 Parcel indicated that there was a safety hazard associated with the potential presence of OE on the M2 Parcel that would warrant a removal action. The type of risk analysis used for this document is defined as "Impact Analysis." The Army has no specific tool to

quantify the risk posed by OE. However, "Impact Analysis" does discuss the potential risks and methods of reducing risks in terms that, while not being definitively measurable, are easily understood by the public. The Army will provide a briefing on "Impact Analysis" at the next BCT meeting. There is no published standard on how much OE can remain at a site. However, since the items used at this site were all surface training items, the proposed removal action should leave few, if any, items behind. Generally what is acceptable to leave at a site is a site-specific determination which must be made with the knowledge of what is present at the site, and what the future land use is, along with other factors. Based on the types of items used at this site and the future land use, the major risk would be to the workers developing the site. The removal action will address that risk and will be overall protective of human health and the environment.

Top of page. See specific comment No. 6. Alternatives must be evaluated against the nine criteria according to the Section 300.430 of the NCP. Effectiveness, Implementability, and Cost are only 3 of the nine criteria. In addition, each alternative must meet the two threshold criteria, namely 1) protect human health and the environment and 2) attain ARARs. This section should be revised to accurately reflect the NCP's requirements for evaluating alternatives against the nine criteria.

**Response:** There is no requirement to evaluate each alternative against the 9 criteria when conducting an EECA. This requirement under the NCP is for conducting a RI/FS. The evaluation of alternatives in this document is consistent with EPA's Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA.

19/11/2.2 1<sup>st</sup> bullet: The first bullet speaks more to worker safety during the actual removal.

ADEM feels the primary goal of any removal action is to protect human health and the environment. ADEM agrees that the actual removal action should be protective of workers and the public during implementation however it should be stated as a separate goal.

Response: Public safety as much of a concern as worker safety during the removal action. An additional bullet has been added for clarification: Ensure overall protectiveness of the public after completion of the removal action

2<sup>nd</sup> bullet: Delete the term "possible" and replace with "practicable"

Response: Text has been revised.

3<sup>rd</sup> bullet: This goal is vague. ADEM believes the appropriate language should be as follows: "The removal action should allow for the intended future use of the property. However, one goal of the BCT is to cleanup property to unrestricted use whenever practicable, regardless of the intended reuse. This allows for unnecessary LUCs being place on property, as well as fewer burdens on all stakeholders, especially the public. If the goal for Parcel M2 is to cleanup to unrestricted use (i.e. residential use) then that should be stated as a goal. Please revise.

Response: Bullet was revised. Behavior modification is part of the risk management envisioned for this property. Although the removal action could possibly remove all OE from the property, there is no 100% guarantee of this. However, if behavior modification is coupled with the removal action, risk management for this property could be very effective. Specifically, if site workers are made aware of the possibility of

encountering OE and the proper response if any suspect item is encountered, risk of a possible accident is significantly minimized.

20/11/2.3.2 2<sup>nd</sup> bullet: Delete the term "risk reduction" and replace with "the removal action".

Response: Text has been revised.

4<sup>th</sup> bullet: This requirement is confusing. It is our understanding that the Site Investigation (SI) for hazardous substances (i.e. other constituents) will be conducted prior to the OE removal action. Please explain.

**Response:** SI for hazardous substances (i.e. other constituents) is currently being conducted. Text was revised to remedial actions. It is unknown at this time if follow-on remedial actions will be required.

3rd bullet: The Department requires that the post-removal action activities should include a Quality Assurance sampling process that will certify that the removal action met its intended objective (i.e. was a success). Not unlike any other removal action, the Army must demonstrate effectiveness of the removal action after the removal has been completed. If the removal action did not remove all of the OE items, the post-removal sampling provides the data necessary for the BCT to decide the appropriate action to take, namely conduct a second removal or conduct a post-risk assessment in order to provide the public with the risk posed by the residual OE. The QA/QC sampling process for OE would parallel the QA/QC process used for HTRW removals conducted under CERCLA. Please revise this section accordingly.

Response: The quality control plan for OE activities will be included in the site-wide and site-specific work plans. CEHNC can provide a copy of our Quality Assurance Plan for OE activities upon request.

22/12/2.5.1 End of first sentence of paragraph. Delete the term "remedial action" and replace with "CERCLA".

Response: Text has been revised.

Same paragraph, last sentence. After the term "applicable to" please insert the phrase "hazardous substance, pollutant, or contaminant, to include ordnance". In addition, delete the term "remedial action" and replace with "CERCLA".

**Response:** Text has been revised to "ordnance, or maybe to hazardous substances, pollutants, or contaminants". "Remedial action" has been replaced with "CERCLA".

1st sentence is incorrect. Although it may be USACE policy to attain ARARs to the extent practicable for OE removal actions, it is also a requirement of Section 300.415 of the NCP. Section 300.415(j) states that "In determining whether compliance with ARARs is practicable, the lead agency may consider the following factors, including: (1) The urgency of the situation; and (2) The scope of the removal action to be conducted." The third factor (statutory limits,) was in the Proposed Rule, however, was stricken by EPA from the Final Rule. Secondly, statutory limits for time and cost do not apply to non fund-financed removals. Please revise this section in accordance with the NCP.

Secondly, ADEM has reviewed both the urgency and scope of the recommended removal action, and have determined that all ARARs that have or will be identified must be attained. According to the contents of the subject EE/CA, we believe this is not an emergency removal nor is it a time-critical removal, therefore the urgency of the recommended removal action is negligible. Furthermore, the scope of the removal action as defined in the EE/CA demonstrates that the removal action will serve as the final remedy for Parcel M2. As per the preamble of Section 300.415 of the NCP, when determining the extent to which ARARs must be attained, the key component to consider is the purpose of the removal action. When the removal action objective has been defined to serve as the final remedy (Table 3.1, Alternative 4, Long-Term Effectiveness Criteria), then the scope of the removal action is not unlike that of a remedial action, therefore full compliance of ARARs is required. Please revise.

**Response:** At this time it is not known if the removal action will be a final remedy. Additional remedial actions could be required based on the SI currently being conducted by IT. In addition, if at any time in the future there is an indication that a residual OE hazard remains at the site, additional remedial alternatives may be required. In addition, see attached letter dated March 24, 2000 regarding attainment of ARARs.

24/13/2.5.2 Top of page, 3<sup>rd</sup> bullet. Same as previous comment. Statutory limits for response action duration and cost do not apply to non-fund financed removal actions. Please delete this bullet.

Response: Text has been revised.

25/13/2.5.4 2<sup>nd</sup> sentence. Delete the term "numerical values" and replace with "standards".

Response: Text has been revised.

26/13/2.5.5 Last sentence refers the reader to Table 2.2. Table 2.2 does not exist. Please revise.

Response: Reference to Table 2.2 has been deleted.

27/14/2.5.6 Please include the following as potential State ARARs: Alabama Hazardous Waste Management and Minimization Act, ALA. CODE 22-30-1 et seq., Alabama Safe Drinking Water Act, ALA CODE 22-31-1 et seq., Alabama Water Pollution Control Act, 22-23-1 et seq., and the Alabama Solid Waste Disposal Act, 22-27-1 et seq. In addition, ADEM considers DOD 6055.9 as a Chemical Specific ARAR. Please revise.

**Response:** Please be more specific. What specific portions of these references would be considered ARARs for the M2 Parcel. DoD 6055.9 is not an ARAR. By definition, an ARAR must be promulgated specifically in response to an environmental statute. DoD 6055.9 does not meet this definition. It contains safety requirements, which DDESB ensures through review, and concurrence that we meet.

28/14/2.5.7 Same as previous comment. Please include the State ARARs.

Response: See response to comment 27.

29/14/2.5.8 Same as Specific Comment No. 27. Include State ARARs and DOD 6055.9 as potential Action-Specific ARARs.

Response: See response to comment 27.

30/15/3.2.1 1<sup>st</sup> sentence. Delete the term "NDAI" and replace with "No Action".

Response: Nonconcur. DA Memo dated May 1999 has been attached for reference.

31/17/3.3.1 1<sup>st</sup> bullet: Same as specific comment No. 5. The term No DOD Action Indicated should be specifically defined. Currently, ADEM is not familiar with this term or its meaning. According to CERCLA and the NCP, the term "No Action" is used and has specific regulatory meaning regarding removal/remedial action alternatives. Please clarify.

**Response:** A copy of the DA Memorandum has been included as an attachment to annotated comments. The rationale for this change is that the perception of the NOFA terminology represents a final determination when eligible property or an associated project is found to have no DoD action. This is not the case for OE projects. If new information is found, the status of the property will be reconsidered. The term "NDAI" is more indicative of a determination that is open to further review and is not a final decision.

32/17/3.3. 2<sup>nd</sup> bullet: See general comment No. 2.

**Response:** Reference to institutional controls has been deleted and replaced with language consistent with the proposed LUCAP MOA.

33/18/3.3.2 Same as previous comment.

**Response:** Reference to institutional controls has been deleted and replaced with language consistent with the proposed LUCAP MOA.

34/18/3.3.4 ADEM will reserve comments on the types of technologies being considered for Alternative 4. Specific comments and concerns will be forthcoming upon our review of the Removal Action Work Plans and Site-Safety Submission.

Response: Comment noted.

Refer to Specific Comment No. 6. Please revise all of Section 3.4 in a manner that is "consistent" with the NCP for evaluating alternatives.

Response: See response to comment 6.

1st paragraph, 2nd sentence. Please validate this sentence by providing detailed rationale as to how the Army will certify that this Alternative will be protective of human health and the environment and demonstrate that all OE, regardless of depth, has been successfully removed.

**Response:** Although QA/QC will be performed to ensure the effectiveness of the removal action, the Army nor anyone else can demonstrate with complete confidence that all OE regardless of depth has been

successfully removed. Remedial actions for other hazardous constituents cannot and do not provide the level of confidence you are asking the Army to certify for this response action.

37/25/4.3

What ongoing RI/FS and ROD are you referring too? ADEM is not aware of any ongoing RI/FS or ROD for Parcel M2. Based on the findings of the submittal, it is our understanding that the subject EE/CA is serving as the RI/FS and ROD for Parcel M2. Does USACE-HNT intend to conduct both EE/CAs and RI/FSs on every range at Fort McClellan? Furthermore, the EE/CA as presented by the Army to ADEM and EPA, is serving not only as a removal action to mitigate risk, but also as the final remedy for this site. Please clarify.

Response: Text referring to an RI/FS was accidentally pasted into document text and has been deleted. There is no intent to conduct both EE/CA's and RI/FSs. At this time it is not known if the removal action will be a final remedy. Additional remedial actions could be required based on the SI currently being conducted by IT. In addition, if at any time in the future there is an indication that a residual OE hazard remains at the site, additional remedial alternatives may be required.

38/26/4.4 2<sup>nd</sup> sentence. What final report are you referring too?

**Response:** All site activities will generate a final report of some nature to provide documentation of findings, recommendations, procedures used, etc. Text has been revised to "final report(s)."

3<sup>rd</sup> sentence. Delete "consistent" and replace with "inconsistent".

39/26/4.5 1<sup>st</sup> sentence. Please define consistent.

Response: "To be in agreement with".

40/Appendix A

Since the Army is conducting their OE removal/remedial actions according to CERCLA, and the NCP, it would seem prudent that you would reference, at minimum, CERCLA, the NCP, and the corresponding guidance documents such as "Conducting Non-Time Critical Removal Actions Under CERCLA". Please revise Appendix A.

Response: References have been added.

#### **End of Comments**

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 4

61 Forsyth Street Atlanta, Georgia 30303-3104

04/03/00

Mr. Ron Levy
U.S. Army Garrison
BRAC Environmental Coordinator
Environmental Office
Building 215
15<sup>th</sup> Avenue
Fort McClellan, Alabama 36205-5000

RE: Final M-2 Comments

Dear Mr. Levy,

Attached are Final EPA comments on the EE/CA for the property known as M-2. This letter and comment set includes a few comments additional to those forwarded on Friday, 03/31/00 The additional comments do not represent new issues not addressed in Fridays letter and comment package. Rather, they are simply an elaboration or clarification. Please consider this set of comments as the sum from EPA to which Huntsville need respond.

Please let me know your opinion on my suggestion of bringing the EPA Oversight Contractor to the April 25-26 BCT meeting in Gunthersville.

Thank you for your cooperation in this matter.

Sincerely,

Reedy

- P. Stroud, ADEM
- C. Johnson, ADEM

# EPA Comments on the Draft Engineering Evaluation/Cost Analysis for the M2 Parcel Ft McClellan Anniston, Alabama

#### OVERALL TECHNICAL COMMENTS

#### General Comments

1. EPA's review of the Engineering Evaluation/Cost Analysis [EE/CA] (Draft) for the M2 Parcel dated March 2000 identified that this document does not meet all relevant and applicable Federal, Department of Defense (DoD), Department of the Army (DA) or State guidance and policy. This review focused on the following areas:

Compliance with Federal, DoD, DoA, State and local requirements, in particular with EE/CA requirements and explosive safety pursuant with the following:: Adequacy of the proposed UXO (unexploded ordnance) clearance operations and QA/QC for UXO clearance operations;

Adequacy of the UXO geophysical methodology for determining the presence or absence of unexploded ordnance;

Adequacy of data quality objectives (DQOs) to support the removal approach in order to produce data capable of supporting remedy selection pursuant to the National Contingency Plan.

**Response:** Comment noted. Responses to specific concerns are included in the following annotated comments.

The EE/CA for M2 does not contain the data or descriptions of rationale required to provide a defensible document. Specifically excluded are the performance objectives to support UXO/OE (ordnance and explosives) detection strategies. There appears to be a lack of recognition of the possible presence of UXO, in that OE is the term used

almost exclusively throughout the document. Overall, this document does not appear to contain adequate information to formulate a viable EE/CA or support a successful, technically defensible UXO clearance on the M2 Parcel at Ft. McClellan. See General Comment 6.

Response: Additional data/rationale has been added to text to support objectives. The term ordnance and explosives (OE) as used throughout the document is correct. Unexploded ordnance (UXO) is a subset of OE and does not include other types of OE which are expected to be encountered on the M2 Parcel. In accordance with safety regulations and guidance, all OE is treated with the same precautions as would be used with UXO until the item has been positively identified to be inert. Definitions for OE, UXO, and other OE terminology have been added to document for clarification.

3. The EE/CA for M2 should provide a full discussion and analysis of this action and how this action fits into the overall BRAC Cleanup Plan (BCP).

Response: The M2 Parcel will be added to the BRAC Cleanup Plan during the next update.

4. The EE/CA does not clearly specify the expected land use but rather implies "commercial use" without a specific reference to a local reuse plan. The future use is cited as commercial on Pages 10 and 29, and recreational and industrial on Page 25. These points should be clarified.

Response: The JPA's reuse plan dated November 1997 has the property identified for recreational use. However, the JPA's reuse map, which was updated on March 2000, identifies the property for commercial use. The text in the document will be revised to reflect and reference the updated reuse map, which states commercial use.

The term "No Department of Defense (DoD) Action Indicated."
The author should provide the DoD authorization document
for "No Department of Defense (DoD) Action Indicated." and
the specific data quality objective and criteria for this
determination.

Response: A copy of the DA Memorandum has been included as an attachment to annotated comments. The rationale for this change is that the perception of the NOFA terminology

represents a final determination when eligible property or an associated project is found to have no DoD action. This is not the case for OE projects. If new information is found, the status of the property will be reconsidered. The term "NDAI" is more indicative of a determination that is open to further review and is not a final decision.

- 6. Throughout this document the term OE is predominant. The Term UXO has been scrupulously avoided. This leads to a situation that could mislead the reader into believing that whatever ordnance was found on M2 it would be OE instead of UXO. This is not the case. The terminology OE should be changed to OE/UXO until a determination is made as to the actual physical state of the ordnance. The following are descriptions of these terms:
  - OE is defined as "Ordnance (Munitions) and Explosives"; further Ordnance (Munitions) is defined as unfired unmolested ordnance. UXO is defined as "failed to function, in some fashion/design". UXO, OE and Chemical should be list in *Paragraph 1.5 Risk Analysis* as referenced below.
  - DoD defines "explosive ordnance" as any munition, weapon delivery system, or ordnance item that contains explosives, propellants, and chemical agents. UXO consists of these same items after they (1) are armed or otherwise prepared for action, (2) are launched, placed, fired, or released in a way that they cause hazards, and (3) remain unexploded either through malfunction or design. A person's ability to recognize a UXO is the first and most important step in reducing the risk posed by a UXO hazard.
  - As defined by DOD 6055-9 STD and TB 700-2 DoD Ammunition and Explosives Hazard Classification Procedures Unexploded Ordnance. Explosive ordnance which has been primed, fuzed, armed or otherwise prepared for action, and which has been fired, dropped, launched, projected or placed in such a manner as to constitute a hazard to operations, installations, personnel or material an remains unexploded either by malfunction or design or for any other cause.

Response: The term UXO has been used when appropriate throughout the document. The reader has been correctly lead to believe that any ordnance to be found on the M2 Parcel is OE. UXO is a subset of OE and it is possible that some of the potential OE within the M2 Parcel could be UXO. The specific items expected to be found within the M2 Parcel are listed in Table 1.2 and consist of practice and training items. If one of these items is intact it may contain a small explosive charge still capable of functioning. This item would be considered UXO and would be identified as such in the removal report. Definitions of OE and UXO have been added to the document for clarity.

#### Specific Comments

1. Executive Summary - Analysis and Recommended Action

Paragraph E.1.1, "The Army proposes a removal action...". This is an inclusive statement but does not state what type of removal action, i.e. Time Critical or non-time critical. This needs to be stated clearly.

Response: Text has been clarified.

Paragraph E.5.1, Analysis and Recommended Action. "It is recommended that Alternative 2 be evaluated... of the overall risk management for FMC." There is no discussion in this document of the risk methodology proposed or how the overall risk management will be implemented. A specific section and discussion should be included on this topic.

**Response:** All references to institutional controls have been replaced with text discussing the proposed LUCAP/LUCIP(s) for Fort McClellan.

Paragraph E.5.1, Other Site Work. "Prior to removal of OE....a site investigation will be performed....to determine if historical land use resulted in. This should be expanded and the "site investigation" be clearly delineated with appropriate data quality objectives.

**Response:** This discussion as well as DQOs for the SI is included in the site-specific workplans developed by IT Corporation for the M2 Parcel. A reference to this document has been added to the text.

Paragraph E.5.1, Other Site Work. "Other investigations/removal actions will also be performed on the adjacent properties..." The other investigations/removal actions should be specified, the appropriate Areas of Concern (AOC) should be delineated, and the full site conceptual model provided.

**Response:** The other site investigations and/or removal actions have been added to the text for clarification. The full site conceptual model for this area of concern (the full extent of the training area) will not be completed until the EE/CA for the Redevelopment Area has been completed. The M2 Parcel is only a small portion of the AOC.

All but Alternative 4 were discarded without qualifying support information, until later in SECTION 3, Paragraph 3.3. There should be a reference to this in the Executive Summary.

Response: Reference has been added to text

2. Pages 5 and 6, Paragraph 1.1.5 - The information presented in this paragraph presents an entirely different picture of the geology of the site than what was presented in the Site Specific Field Sampling Plan [SSFSP] (March 2000).

Specifically, this document mentions "karstic units", "variable fracturing" and "potential for conduit" that is completely omitted from the SSFSP. These issues have a different impact on ground water issues than what was presented in the SSFSP. These two documents should be reconciled with each other.

Response: Text has been revised to reflect the information provided in the SSFSP.

Page 7, Paragraph 1.3.2. This paragraph states, "Numerous areas suspected of being used for chemical warfare training or chemical warfare material storage were inspected. No indication of OE training, chemical material storage was noted in the document to be within the boundaries of the M2 Parcel" but later in Paragraph 1.3.5, 1.3.6, 1.3.7 and 1.3.8 it is stated that OE was located in and around the perimeter of M2. There has been no formal SI listed to support or deny any hazards located at this site. With only cursory inspections by Zapata Engineering and H. Hubbard in the M2 area, UXO, chemical and OE precautions should be in place. Also see General Comments 2 and 6 and Specific Comment 25.

Response: A formal SI is not required to support or deny any hazards located at this site. In accordance with "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA", para. 2.1, the EE/CA "should contain only those data necessary to support the selection of a response alternative, and rely upon existing documentation whenever possible." The M2 Parcel has been determined to be part of a larger training area, which used OE practice and training items. The draft EE/CA for the Proposed Eastern Bypass and the current removal action being conducted to support preconstruction activities for the Proposed Eastern Bypass have delineated through identification of OE practice and training items, that this training area extends along the northern and eastern boundaries of the M2 Parcel. Historical information also has identified that this type of OE was encountered when property was developed south of the M2 Parcel boundary. This data and existing documentation provides sufficient information for determining the nature and extent of contamination for the M2 Parcel as well as for selection of a response alternative. All appropriate safety precautions for the determined hazards will be followed. There is no evidence of any previous training using Chemical Warfare Materiels on this property. All OE is treated as UXO

until it can be positively identified as inert. These safety procedures are identified in the Site-Wide workplans for Fort McClellan and site-specific procedures will be identified in the Site-Specific workplans for the M2 Parcel.

4. Page 7 and 8, Paragraph 1.3.4. This paragraph states "There were also anomalies identified in photographic coverage overlapping the M2 Parcel that were recommended for further investigation." There is no indication in this document that this recommendation has been addressed.

Response: Text has been revised to reflect actions taken to address this recommendation.

5. Page 8, Paragraph 1.3.7. This paragraph states, "There was no intrusive sampling performed within the M2 parcel". This leads to the conclusion that all costs and data are based on archival information and UXO/OE surface finds along with subsurface data external to M2 were used to complete the EE/CA. Basing the EE/CA on this kind of input makes the formulation or application of an appropriate sampling methodology problematic. Additionally, there should be a AOC or site specific UXO depth matrix as part of this paragraph with rifle grenades, 60 mm mortars and M1 mines as part of the AOC specific matrix.

Response: Costs are not based on archival information, rather they are based on current production rates achieved by EODT in performing removal actions for the proposed Eastern Bypass. These production rates were based specifically on clearance of grids contiguous to the M2 Parcel with similar terrain as well as being part of the same training area where similar types of OE would be expected to be encountered. Text has been added to discuss the potential depths these items would be expected to be encountered.

Pages 9 & 10, Table 1.2. The table does not list the White Phosphorous Hand Grenade cited in paragraph 1.3.9. This should be included.

Response: Table has been revised to include specific information on all items and expected fillers, including White Phosphorus.

7. Paragraph 1.3.9. This paragraph mentions "Expended rifle smoke grenades..." Explain how these materials fit into the

site conceptual model for this particular AOC. This should be addressed and fully analyzed.

8. Paragraph 1.4.1. This paragraph states "Based upon the type and use of OE...depths of less than one foot." The rationale for this depth must be fully described in particular with respect to finding mortar rounds.

Response: Text to support rationale has been added

9. Table 2.2. This table is missing and should be provided.

Response: Table was replaced with text discussion. Reference to Table 2.2 has been deleted.

10. Paragraph 2.3 Removal Action Scope, Subparagraph 2.3.2
Removal Action 4<sup>th</sup> Bullet. This Bullet states "Provide OE clearance so that follow-on remedial site investigations..."
This appears to be contra-indicated with the recommended action of removal. Although not specified it appears to recommend a "time critical removal action." If this is the case it should so state within the document and then addressed how this fits in with this bullet.

Response: This is not a time critical removal action. This removal action is limited to OE. Another SI is being performed to address other environmental issues. There is a possibility that the SI could indicate that additional remedial actions for environmental concerns other than OE is required. Clarifying text has been added.

In addition this paragraph states that "In the event that actual removal...Provide a clear preference to blow-in-place..." This statement needs to be clarified.. If a UXO if found to be safe to move, why is there a "preference" for "blow-in-place."

Response: It is always preferable to blow-in-place than to move a potentially explosive item whenever possible. Determination that an item is safe to move is still a judgement call and possibly fallible. All UXO operations will be performed in accordance with the approved workplans and other safety guidance and regulations as required.

11. Page 2-14, Paragraph 2.5.6, Chemical Specific ARARS. The is no discussion of the high potential for contamination with

explosive residue in a particular AOC. This needs to be clearly addressed and data quality objectives need to be specified.

Response: All data quality objectives for any OE response action for the M2 Parcel will be included in the site-wide and site-specifc workplans for Fort McClellan.

12. Page 14, Paragraph 2.5.9. The status of DOD 6055.9-STD as "To Be Considered' Criteria is questionable. This could be more appropriately listed as an Action Specific ARAR since Chapter 12 deals specifically with "REAL PROPERTY CONTAMINATED WITH AMMUNITION, EXPLOSIVES OR CHEMICAL AGENTS" Additionally, many other DoD Instructions, Directives and Regulations have not completely identified or correctly applied to the list of ARARs. For example, DoD 6055.9 has been listed as TBC, indicating that the instruction has not been promulgated and that its provisions are provided only as quidance and not actually required. DoD 6055.9 Paragraph B states "Ammunition and explosives safety standards herein shall be considered minimum and greater protection shall be afforded when practicable. They apply whenever any explosives, propellants, or similar energetic materials are present on DoD-owned or -leased facilities and to U. S.titled ammunition in host nation facilities." expands upon the criteria for waivers and exceptions; however all exceptions and waivers require DDESB approval. These statements and requirements elevate DoD 6055.9 to the status of an Activity Specific ARAR. Additionally, documents, such as TM 9-1300-206, Ammunition and Explosive Standards, and the U.S. Army Environmental Restoration Programs Guidance Manual are absent. These documents provide the Department of the Army's guidance on form and content of documentation relating to UXO/OEW activities. There should be a thorough search of DoD and DoA policy documents to ensure that these documents and others like them are included in the ARARs and their provisions addressed in the body of the EE/CA.

DoD 6055.9-STD does much more than define personnel requirements, safety precautions and procedures for the detonation or disposal of ordnance. Chapter 12 specifically addresses remediation, remediation methods and use restrictions, remediation planning, remediation process, site specific depth determination and assessment depth.

Response: DoD 6055.9 is not an ARAR. By defintion, an ARAR must be promulgated specifically in response to an environmental statute. DoD 6055.9 and other referenced policies do not meet this definition. They contain safety requirements, which DDESB ensures through review, and concurrence that we meet.

Page 16, Paragraph 3.2.3. OE detection is addressed in this and several other paragraphs. There are no performance standards for instrumentation or personnel certification standards cited in reference to this operation (Note: the General Site-Wide Work Plan outlines a general program but does not provide specific criteria). Consequently there is no measure of reliability (Probability of Detection [Pd] or Confidence Level [Cl]) established to determine instrument performance. This omission makes any attempt to quantify Risk to Human Health suspect. Also, without these performance standards, Quality Assurance of detection operations cannot be effectively implemented.

Detection instrumentation and UXO/OE discrimination techniques currently are not 100% effective. The current Jefferson Proving Ground Studies cited detection reliability at approximately .85 (Pd) with a 90% Confidence Level and Discrimination technology was only approximately 50% effective.

The combination of these situations inhibits cost-effective clearance due to difficulties in target reacquisition and makes implementation of institutional controls and future land use problematic since the quantity, depth and locations of any remaining UXO cannot be adequately characterized. This is one of the central issues to UXO/OE clearance. Without these basic Data Quality Objectives, UXO/OE clearance activities cannot be proven effective and the data is not defensible.

Response: Site-specific Data Quality Objectives for the M2 Parcel will be included in the site-specific workplans.

Page 17, Paragraph 3.3.1 and Page 18, Paragraph 3.3.4, Alternative 4 - Surface and Subsurface Clearance to OE

Depth. This concept is indefensible due to the rationale cited in Comment 13. Without performance standards, there is no defined depth to which the instruments in service are capable of detecting UXO. Therefore the only thing that can

be determined is that the UXO cleared is what the instrument could "see". There is no way of formulating a methodology or making a rational estimate of what UXO/OE could still be remaining on site after the detection effort has been completed. This again leads to problems with institutional controls and land use.

Clearly the "clearance to depth option does not conform to the letter or intent of DoD 6055.9. DoD 6055.9 Chapter 12 paragraphs 4 c and 4d state:

- "c. Site-specific remediation depth determination. The preferred method to determine the remediation depths is to use site-specific information. The following information is needed for a site-specific determination:
- Characterization of the site, including the boundaries, types of ordnance, and soil characteristics....
- Providing the estimated depth at which UXO may be present based on available records, technical data, and/or on-site investigation, as appropriate.....
- Determining the risk associated with the end-use of the site assuming differing depths of remediation...
- Using UXO depth estimate(s), establish remediation depths for the site-specific conditions.
- d. The approved remediation plan may be modified based on actual conditions encountered during the remediation..."

The author should reconsider and renegotiate to arrive at valid clearance depths in accordance with DoD 6055.9 that support the intended land uses stated in the stakeholder's reuse plan.

Response: Nonconcur. All data indicates that the potential OE items that may be encountered in the M2 Parcel are at a detectable depth. DDESB will review the Explosive Safety Submission to determine if the requirements of DoD 6055.9 have been met.

Page 19, Paragraph 3.3.6. See Comment 13.

Response: Site-specific Data Quality Objectives for the M2 Parcel will be included in the site-specific workplans.

Page 20, Paragraph 3.4.4. See Comment 12

Response: See response to Comment 12.

17. Page 20, Paragraph 3.4.5. See Comment 13

Response: Site-specific Data Quality Objectives for the M2 Parcel will be included in the site-specific workplans.

Page 21, Paragraph 3.4.11. When considering Comments 12 and 13, there is some question whether an informed Property Owner would accept the assumptions on UXO/OE removal without defensible data, known clearance depths, and documented instrument performance.

Response: Comment noted. Draft EE/CA will be available for public comment from April 10-May 9. Public comments will be evaluated and incorporated into the document as appropriate at that time.

19. Page 22, Paragraph 3.4.12 and 3.4.13. See comment 18.

Response: Comment noted. Draft EE/CA will be available for public comment from April 10-May 9. Public comments will be evaluated and incorporated into the document as appropriate at that time.

Page 22, Paragraphs 3.5 and 3.6, and Pages 23 and 24, Table 3.1. The table only evaluates Alternatives 1, 3, and 4. There is no objective evaluation for Alternative 2. In Paragraph 3.4.1 it states that "each of the four alternatives identified in Paragraph 3.3 must be analyzed and screened" but in Table 3.1 Alternative 2 was not evaluated.

Response: Alternative 2 has been replaced by discussion on LUCAPs/LUCIPs and included in the evaluation.

Pages 23 and 24, Table 3.1 Alternative 4. The following points should be addressed in reference to Alternative 4:

Complies with ARARs - Considering Comment 12, and the requirement to establish clearance depths (site specific or default depths listed in Table "Planned End Use" in Chapter 12 of DoD 6055.9-STD) it is questionable if this alternative does comply with the ARARs.

Response: It is unclear which ARARs this comment refers to. DoD 6055.9 is not an

ARAR. However, DDESB will determine if compliance with DoD 6055.9 is achieved.

Long Term Effectiveness - Considering Comment 13, the actual analysis would fall somewhere between "marginal" and "good" in that there is no measure of what UXO/OE could remain on the site after the clearance activity is completed.

**Response:** Nonconcur. Data indicates that all potential items for the M2 Parcel would be at a detectable depth. If during actual site activities, other information is identified which indicates OE could be at depths beyond detection capability, other alternatives will need to be evaluated to ensure all actions are protective of workers and the public.

Cost - As stated in Comment 13, costs are impacted by lack of defined DQOs for UXO/OE removal. The degree to which this will affect cost is a function of how many anomalies are located, the quantity of UXO removed, the number, effectiveness and applicability of institutional controls enacted, and the number of times follow-on removal actions are required for UXO/OE not seen or quantified by the current detection system.

**Response:** Costs have been determined by best available data. If additional information becomes available that indicates significant increases in cost, alternatives would need to be reevaluated.

## 22. Page 25, Paragraph 4.2 - Subsurface Clearance of OE to See comment 12

In addition, this paragraph states, "Detailed estimates for surface and subsurface removal can be provided upon request." The purpose of an EE/CA is to fully analyze the proposed actions and the cost analysis must be completed as part of the EE/CA. The full analysis should be part of this EE/CA.

 ${\it Response:}$  More detailed cost estimates have been added to the Appendixes.

23. Page 25, Paragraph 4.3 - Risk Management. Risk Management is problematic when coupled with the concepts cited in Comments 9, 12, ans 13. It is impossible to manage risk when the effectiveness of instrumentation, depth of clearance and remaining hazards are not supported by defensible data.

Response: Nonconcur. Data indicates that instruments would be extremely effective at detecting the potential OE within the M2 Parcel. Also, if hazards remain within the M2 Parcel

after conducting a removal action, risk management is not limited to reduction of exposure but also includes behavior modification. The behavior of an individual when a suspect item is encountered, is the key component to management of risk. If potential property owners and/or site workers are informed of the potential hazards and the appropriate actions to take, the risk management can be extremely effective.

<u>Appendix B - Risk Assessment</u>. See comments 9, 12, 13, and 22. Additionally, this should be fully discussed as part of this EE/CA.

Response: See responses to comments 9, 12, 13, and 22

Appendix B. This appendix should list UXO and Chemical precautions. (See Comment 3)

Response: This comment is unclear. The recommended alternative includes notification of potential OE hazards associated with the M2 Parcel and appropriate actions to take.

In addition, Paragraph B2.5 under Ordnance Density states "Previous investigations adjacent to...indicate a low density..." Provide the full rationale for this unqualified statement.

Response: Additional rationale has been provided.

Appendix C - Geophysical Data for Area 6. This is listed on the top sheet as a Geophysical Survey; the remaining sheets list it as a Geophysical Prove-Out. Also, the top sheet lists the anomaly icon as a "Target Pick", the remaining sheets list the anomaly icon as a "Seeded Item". These terms need to be consistent and defined. Geophysical Survey/Target Pick leads the reader to assume Geophysical Detection of Anomalies. Geophysical Prove-Out/Seeded Item leads the reader to assume these are test grids to evaluate detector performance. Recommend resolution of this issue.

Response: Errors in legend have been corrected for both the draft EE/CA for the Eastern Bypass and for this Appendix.

#### References:

- 1. EPA Guidance for the Data Quality Assessment Process (QA/G-9) (EPA 1997)
- 2. DoD 6055.9 STD (w/chg 1 **DOD Ammunition and Explosives Safety Standards** (July 1996)
- 3. TB 700-2 Department of Defense Ammunition and Explosives Hazard Classification Procedures (5 January 1998)
- 4. General Site-Wide Work Plan for Ordnance and Explosives Response at Fort McClellan, Alabama (Draft) (15 March 2000)
- 5. EPA540-R-93-057 / PB93-963404 Guidance on Conduction Non-Time-Critical Removal Actions Under CERCLA (August 1993)
- 6. Fact Sheet Expediting BRAC Cleanups Using CERCLA Removal Authority (Spring 1997)
- 6. AR 385-64, U.S. Army Explosive Safety Program..
- 7. Department of the Army Pamphlet 385-64, Ammunition and Explosives Safety Standards.
- 8. CEHND 1115-3-524, Removal Action Planning for Ordnance and Explosives Sites Procedural Document.



### DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers WASHINGTON, D.C. 20314-1000

REPLY TO ATTENTION OF: 3 MAY 1999

CEMP-RF (200-1a)

#### MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Emerging Legal Issues

- 1. The purpose of this memorandum is to provide you with information that addresses two of the emerging legal issues discussed at various partnering sessions/meetings between the USACE, Environmental Protection Agency (EPA) PA and the regulators during the past year. The Formerly Used Defense Sites (FUDS) Branch has evaluated these issues along with legal counsel and CX personnel with the objective of providing the latest policy information to the field for consistency in dealing with the regulators. The policy changes will be coordinated with HQ DA and DoD and reflected in the FUDS Manual.
- 2. The first issue concerns the confusion over the Preliminary Assessment (PA) associated with the initial step of the Inventory Project Report (INPR) process. The PA used by FUDS during the INPR process serves to determine the eligibility of a property and any associated project for cleanup under the FUDS Program. The PA utilized by EPA is for the determination of the hazard ranking score for properties to be included on the National Priorities List (NPL). The terminology is now changed from PA to "PAE" which is the acronym for "Preliminary Assessment of Eligibility". This term provides a more accurate description of the INPR process. This modification will be coordinated with HQ DA and DoD for approval. It should be noted that upon completion of a SI, sufficient information will be collected to help EPA determine the hazard ranking score.
- 3. Another topic of discussion and disagreement has been the No Further Action (NOFA) term. The perception is that the terminology represents a final determination when an eligible property or an associated project is found to have no DoD action. This is not the case. NOFA does not mean that the property is considered to be clean or that the FUDS Program will not review any new information regarding DoD activities as it becomes available. If contamination is indicated in the future, USACE will reconsider the status of the property. However, the term NOFA is now changed to "NDAI", an acronym for "No DoD Action Indicated". This term is more indicative of a determination that is open to further or future review and is not a final decision.

David Douthan

TIM. 1 1999

CEMP-RF (200-1a)

SUBJECT: Emerging Legal Issues

8881 1 YAM

4. The point of contact for this matter is Mr. Bob Lubbert (202) 761-5145

FOR THE COMMANDER:

MILTON HUNTER
Major General, USA
Director of Military Programs

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#### DEPARTMENT OF THE ARMY



U.S. ARMY GARRISON FORT McCLELLAN, ALABAMA 36205-5000

March 24, 2000

**Environmental Office** 

Mr. Chris Johnson Alabama Department of Environmental Management Site Mitigation Branch, Land Division P.O. Box 301463 Montgomery, AL 36130-1463

Dear Mr. Johnson:

Enclosed are Army responses to your comments dated November 10, 1999, on the Draft Engineering Evaluation and Cost Analysis (EE/CA) Report for the Eastern By-pass at Fort McClellan. Additionally, I would like to take this opportunity to address your questions and concerns outlined in General Comment number 1 and Specific Comment number 14 in detail.

The primary purpose of the EE/CA is to characterize the nature and extent of ordnance. In addition, the EE/CA examines a variety of risk management alternatives, then moves on to evaluate those alternatives and ultimately concludes with a recommendation as to what specific action should be implemented at that particular site.

The ADEM's comments assert that if the Army truly intends to use CERCLA and the NCP as a framework for addressing OE, then the Army should not support alternatives that do not meet the NCP's Threshold Criteria. The ADEM's comments go on to suggest that Alternatives 1, 2 & 4 should not have been analyzed. It almost seems that ADEM is saying the specified alternatives should not even have been mentioned. The Army responds by noting that the public must be informed of all the actions that were considered by the Army. In this EE/CA, alternative 1 involves the imposition of institutional controls. While that alternative alone might not be protective of human health and the environment, it might be appropriate to include it with another alternative. If the Army excludes it at the outset, the value of what it could offer might be lost altogether. As such, the Army believes it is better to be overly-inclusive than to hastily discard an alternative.

The ADEM asserts that Alternative 3 is really a "presumptive remedy." The basis for this characterization by ADEM is not clear. Presumptive remedies generally apply to hazardous and toxic waste (HTW) projects for which the type of contamination present, and the response being proposed have often been successfully employed in similar circumstances. The Army is of the opinion that ordnance, as addressed in this EE/CA, does not lend itself to a "presumptive remedy," since each ordnance site has unique geographic features, and the ordnance at the site is potentially different even within the site.

While ADEM may disagree with the extent of the analysis that was performed in the EE/CA, the conclusion that ADEM believes this does not comply with CERCLA or the NCP is too general to specifically respond to. The lead agency has the responsibility to determine what

actions it believes are appropriate at this particular site, and then recommend a proposed response. Consistent with NCP guidance, the lead agency should conduct whatever level of analysis it believes to be appropriate in order to support the final decision it takes. The lead agency must also be prepared to respond to public comments and questions regarding its decision to consider or not consider various alternatives. Without some type of analysis, the lead agency could not possibly be responsive to the public. For example, if there is no discussion of a no further action alternative, the agency would be hard pressed to convince the public that it had even looked at such an alternative.

The Army contends it acted properly, and conducted sufficient analysis to include or exclude the alternatives listed. Moreover, the Army is convinced that the document is consistent with the process set out in the NCP. The Army admits that it did not adhere to the EPA guidance specifically written for EE/CAs, since that guidance is tailored to HTW sites. Ordnance does not fit squarely into the type of analysis the guidance was written for, but the analysis performed for ordnance is consistent with the analysis for HTW wherever it is possible to be consistent. As discussed in further detail below, the Army uses a CERCLA-like process, using the NCP as a primary guidance document, supplemented by engineering and risk management tools unique to ordnance issues.

ADEM's comment number 14 states that the Army does not consider OE as a CERCLA hazardous substance for ARARs, but it does want to consider it for waiver from ARARs. The well documented current DOD position is that ordnance, which was used for its intended purpose and has not been placed in a burial pit, is not a CERCLA hazardous substance. Throughout the country, the Army executes a program in which ordnance and explosives are safely removed from land to enable safe use of the land for other purposes. In executing its program, the Army has adopted a process that is consistent with the NCP. Within that process, one of the criteria to be evaluated before deciding on an appropriate response action is consideration of ARARs.

The Army does consider endangered species, protected flora and fauna, cultural resources, etc., when evaluating removal or risk reduction alternatives. These are ARARs. However, ordnance poses a unique safety risk that must also be considered. If an ordnance item is discovered, and it is too unstable to move, it must be blown in place. For example, if an ordnance item is found next to a protected plant, the risk of harming the plant will be weighed against the risk of injuring the worker and potential members of the public that might come into contact with the ordnance item. In such a situation, human safety outweighs protection of the plant. Therefore, a waiver of the ARAR that ordinarily would require protection of the plant would be appropriate. The Army could choose to call this something different, but it has tried to stay with terminology that is familiar to the regulatory community, and consistent with CERCLA and the NCP, hence "waiver." The Army does not consider this a double standard. If the Army gave no consideration to the plant, ADEM would of course be concerned. The Army is willing to call ARARs something else if that is necessary.

Again, please understand that the Army is trying to use the CERCLA NCP process to address a safety hazard first, so safety concerns will often trump other considerations. Once the safety concerns are addressed, the NCP process will be used to address constituents that may remain at the site.

In conclusion, DOD has an active dialogue with EPA and the states over this issue as it pertains to ordnance work and to the proposed Range Rule and its risk model. However, presently and for the immediate future, ordnance continues to be addressed as a safety hazard. To the extent the NCP process allows this work to be executed without endangering the lives of the workers on site or the public at large, the NCP process is followed. When the process impacts the safety of those persons, exceptions or deviations occur. The Army does look at the impact of those exceptions and deviations. Army policy is conservatively designed to err on the side of safety. All environmental considerations are evaluated, but sometimes a waiver is necessary to accommodate safety. If ADEM has a specific concern over the process being used to address the ordnance issues at Ft. McClellan, the Army is open to further consideration of such concerns; however, the bottom line position of the Army is the firm contention that the process being employed is consistent with CERCLA as implemented through the NCP. Particularly since the applicable standard, as promulgated in 1990, is "substantial compliance."

If you have questions or concerns, please contact Margaret Simmons, Assistant Attorney with Huntsville Corps of Engineers at 256-895-1104.

Sincerely,

Ronald M. Levy

Environmental Coordinator

**Enclosure** 

Copies Furnished:

EPA Region IV, Mr. Bart Reedy, w/enclosure

#### Memorandum For Record

4/27/2000

SUBJECT: Mini Recon of the M-2 Parcel, Fort McClellan, AL

In February 2000, I performed a mini reconnnaissance of the proposed M-2 parcel on Fort McClellan. I traversed the parcel in four locations from the east to the west. Each sweep lane was approximately 4-5 feet wide. The first two sweeps were done with a Shondstedt Magnetic Locater, Model CX-52 series. The second two sweeps were done with a White Spectra all metals locater. No UXO was discovered during the recon. Several areas were found that looked like remains of training/fighting positions and a couple of drum closing rings.

Henry C. Hubbard Jr. Safety Specialist



# International Technology Corporation Unexploded Ordnance Division Fort McClellan Alabama M2 Parcel 232(O)



#### I. SITE DESCRIPTION

Area M2 is a subsection of Area 45, Parcel 232(Q). Area M2 encompasses an area of approximately 20.23-acres, approximately 400 feet south-southeast of Summerall Gate and Summerall Gate Road, east of the Anniston-Jacksonville highway and adjacent to the western Main Post boundary (attached figure). Area M2 is a subsection of Parcel 232Q-X. Parcel 232Q-X includes all areas that are not otherwise designated south of Summerall Gate Road, north of known ranges east and west of Iron Mountain Road, east of the Main Post boundary, and west of the Motor Pool 3100, Parcel 146(7). The closest parcel to Area M2 is the Former Weapons Demonstration Area, Parcel 194(7). The parcel boundaries extend south of Summeral Gate road to the perimeter fence north of the Natural History Museum and from the perimeter fence along Route 21 east to a dirt access road (attached figure). A drainage creek crosses the southwest corner of the parcel. Surface water was not present within this drainage creek at the time IT UXO personnel performed field work. Two small intermittent streams converge at the east end of the parcel flowing north and merge with a third intermittent stream before the stream exits the parcel flowing north. The streams had approximately 3 to 5-inches of flowing surface water at the time field work was being conducted. Several linear trenches approximately 12 feet to 18 feet in length and 3 feet to 4 feet deep were observed on the east-facing slope, near the east-central portion of the site. The trenches appear to be training areas with fighting positions. The orientation of the trenches are similar to army doctrine requirements for fighting positions.

#### II. UNEXPLODED ORDNANCE EVALUATION

The Final Site-Specific Field Sampling Plan proposed the collection of 14 surface soil samples, 14 subsurface soil samples, 5 surface water samples, and 5 sediment samples to determine whether potential site-specific chemicals are present at Area M2, Subsection of Area 45, and to provide data useful for supporting any future planned corrective measures and closure activities. Area M2, does not fall within the "Possible Explosive Ordnance Impact areas" shown of Plate 10 of the FTMC Archive Search Report Maps, June, 1998; however, based on recommendation by USACE-Huntsville, UXO surface sweeps and downhole surveys of soil borings were required to support field activities at Area M2. The UXO team conducted avoidance procedures for the ingress and egress of the subsurface soil sampling equipment. Access routes were determined and laid out with engineers' tape; the area was then swept for surface ordnance and subsurface magnetic anomalies with Schonstedts model GA72. The sampling rationale required the collection of direct-push soil samples, which required minimal access using direct-push technology equipment. Drilling and installation of monitoring wells for groundwater samples was not required, therefore, the surface swept routes were not permanently marked. If a subsurface magnetic anomaly was encountered, the access route was moved to avoid the anomaly. Several surface magnetic anomalies were encountered; however, they were discarded military waste, such as barbed wire, communications wire and a few parts of ammunition cans. During soil boring advancement using direct-push technology, downhole surveillance was conducted with a Schonstedts MG220 from ground surface to

12 feet below ground surface. The Schonstedt MG229 was advanced down the borehole at 2 foot intervals to the total depth of the borehole. Each borehole was advanced to 12 feet below land surface. Subsurface magnetic anomalies were not encountered during downhole surveillance at any of the 14 subsurface soil boring locations.

## III. OBJECTIVES, UNEXPLODED ORDNANCE ENCOUNTERED AND SUMMARY

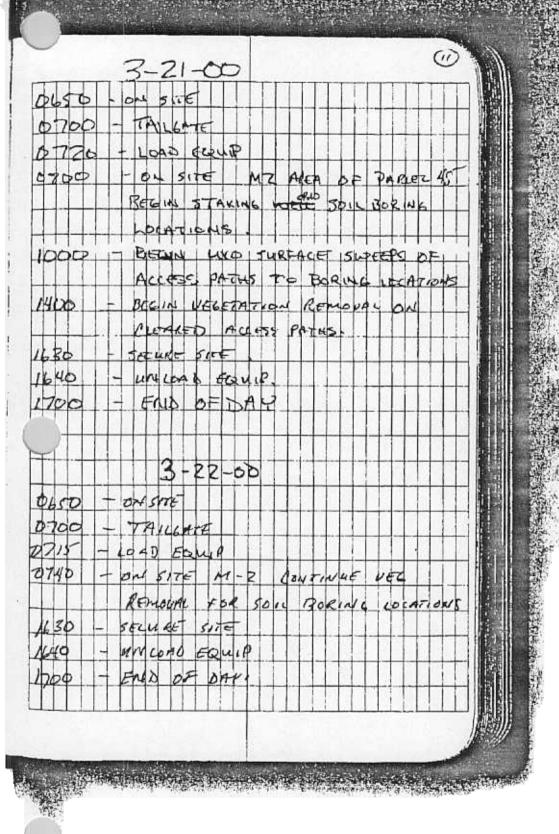
The IT UXO team did not encounter any unexploded ordnance or ordnance waste. However, IT UXO did not conduct a complete surface sweep of the parcel because the objective of the surface sweeps were to clear access for the equipment required for soil sampling. The total area swept was approximately one acre. Based upon field observations, the area surveyed did not appear to be a weapon impact area or an area where live weapons were used or disposed.

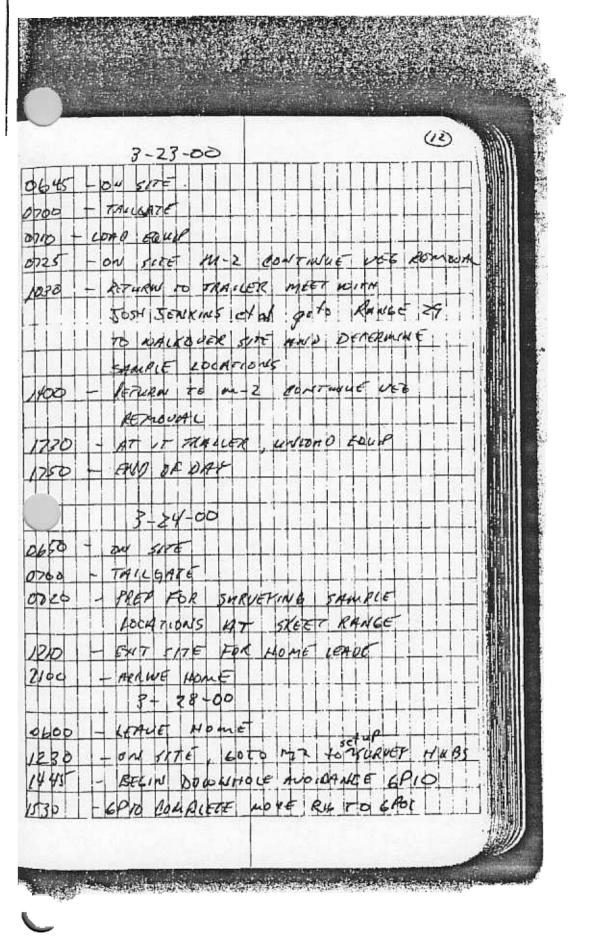
EODT was in the vicinity of the M2 parcel conducting UXO clearance to 1 foot below land surface prior to IT commencing field activities. IT UXO personnel coordinated with the FTMC transition force and EODT was required to move out of the area during IT UXO and direct-push soil sampling operations. After the UXO surface sweeps were completed, downhole surveillance, and direct-push soil samples collected, IT notified the FTMC transition force. EODT was informed by the FTMC transition force to resume their operations.

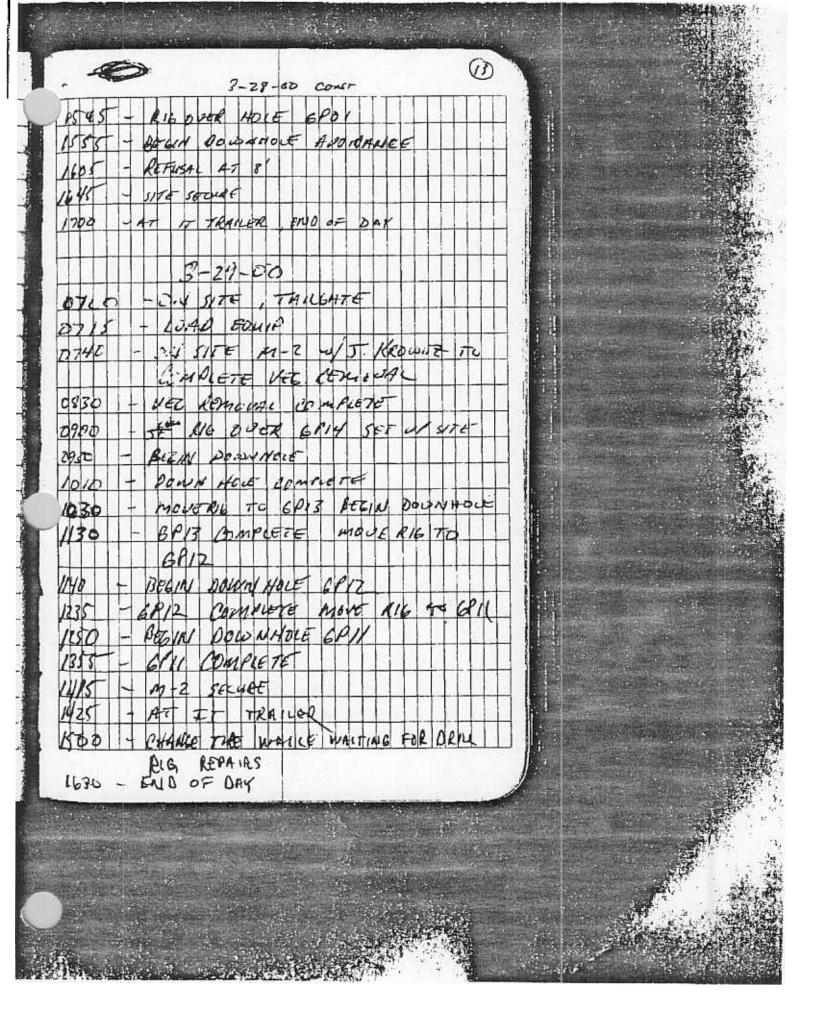
Enclosures: Site Map with IT UXO access routes and surface swept areas

Pictures of the M2 Area

Field Notes







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